

### **REMARKS**

In the Office Action mailed on March 13, 2006, claims 1-10 were pending. Claims 5-10 were withdrawn from consideration. Claims 1-4 were rejected.

Claim 1 has been amended. The proposed amendment does not contain new matter and support can be found in the originally filed claims, among other places. Applicants respectfully request admission of the amended claims.

Claim 2 has been cancelled and is no longer pending.

#### **I. Rejection under 35 U.S.C. §112**

In the Office Action at page 3, claims 1-4 were rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention. The Examiner stated that claims 1 and 4 are incomplete because they omit essential steps. Specifically, the Examiner stated that the claims list a composition to be melted but do not describe any active steps which would enable one of ordinary skill in the art to reduce the defect density of the glass produced by the float glass method.

In regard to claim 3, the Examiner stated that while the claim lists melting the composition of claim 1, it does not explain how the process is altered such that the resulting glass material has lower water content. Specifically, the Examiner stated the claim does not describe any active steps which would enable one of ordinary skill in the art to reduce the water content of the glass produced by the float glass method.

The method of the invention which results in glass having the recited properties (i.e., reduced defect density and lower water content) is primarily obtained by selecting the appropriate glass composition to melt. Further, the steps used in a glass making process to make a glass sheet from batch materials such as melting and other processing steps are well known in the art.

After the glass composition as recited in claim 1 is melted, the glass sheet having reduced defect density can be easily obtained using well known steps. Applicants believe any steps that are not explicitly recited would be routinely practiced by one of ordinary skill in the art to make glass having reduced defect density by following the step recited in claim 1. Therefore, Applicants believe no essential steps are omitted from the claims and respectfully request the withdrawal of this rejection.

## **II. Rejections under 35 U.S.C. §102**

### **A. Rejection over U.S. Patent No. 2,755,212 (“Brown”)**

In the Office Action at page 3, claims 1-4 were rejected under 35 U.S.C. §102(b) as being anticipated by Brown. The Examiner stated that Brown discloses a float glass composition which anticipates the compositional composition of claims 1 and 2, and it inherently possesses the defect density, total field strength and water content recited in claims 1, 3 and 4. Applicants respectfully traverse this rejection.

#### **1. The Present Invention**

The present invention as recited in amended claim 1 is a method for reducing the defect density of glass produced via a float glass process

comprising melting a glass composition consisting essentially of from 65-75 wt.% of SiO<sub>2</sub>; from 10-20 wt.% of Na<sub>2</sub>O; from 5-15 wt.% of CaO; from 0-5 wt.% of MgO; from 0-5 wt.% of Al<sub>2</sub>O<sub>3</sub>; from 0-5 wt.% of K<sub>2</sub>O; from 0-2 wt.% Fe<sub>2</sub>O<sub>3</sub>; from 0-2 wt. % FeO, from 0.0 to 2.0 wt. % TiO<sub>2</sub>; and from 0.0 to 2.0 wt. % neodymium, wherein the glass composition has a total field strength index of greater than or equal to 1.23.

## **2. Brown**

Brown discloses a glass composition that includes TiO<sub>2</sub> and Co<sub>3</sub>O<sub>4</sub> which exhibits improved absorption and transmission characteristics.

## **3. Traversal of the Rejection**

For a proper rejection under 35 U.S.C. § 102, the cited reference must disclose each and every limitation of the invention. The present invention as recited in amended claim 1 is a method that comprises melting the glass composition described above. The glass composition is recited using "consisting essentially of" transition language which means materials that would materially affect the composition cannot be included in the composition.

In contrast to the present invention as recited in amended claim 1, Brown discloses a glass composition that requires cobalt (preferably in the form of cobalt oxide). Cobalt is added to the composition of Brown to supplement and control the coloring action of ferrous and ferric oxide. Because of the "consisting essentially of" transition language used in amended claim 1 to describe the composition which is being melted, cobalt cannot be included in the glass composition recited in claim 1. The addition of cobalt would materially affect the

composition. For example, adding cobalt would affect the coloration of the composition.

As a result, Brown does not disclose each and every limitation of the present invention as recited in claim 1. Specifically, Brown does not anticipate melting a glass composition that does not include cobalt as recited in claim 1. Thus, the present invention as recited in claim 1 is not anticipated by the cited reference, and Applicants respectfully request the withdrawal of this rejection.

Claims 3 and 4 depend from claim 1 and recite the invention in varying scope. Applicants have discussed how amended claim 1 is not anticipated by Brown, and claims 3 and 4 are similarly not anticipated by the reference. More specifically, Brown does not anticipate melting a glass composition that does not contain cobalt as recited in claim 1 as further limited in claims 3 and 4. As a result, Applicants respectfully request the withdrawal of this rejection.

**B. Rejection over European Patent Application 1 055 646 A1 (“Seto”)**

In the Office Action, claims 1-4 were rejected under 35 U.S.C. §102(b) as being anticipated by Seto. The Examiner stated that Seto discloses a float glass composition which anticipates the compositional composition of claims 1 and 2, and it inherently possesses the defect density, total field strength and water content recited in claims 1, 3 and 4. Applicants respectfully traverse this rejection.

## **1. Seto**

Seto discloses a colored glass composition that contains, in percent by weight, 0.5-4% total iron oxide and 0.0002 to less than 0.01% molybdenum (Mo). The glass composition has minimal nickel sulfide stones.

## **2. Traversal of this Rejection**

The rule for a proper section 102 rejection is shown above. The present invention as recited in amended claim 1 is a method that comprises melting the glass composition described above.

In contrast to the present invention as recited in amended claim 1, Seto discloses a glass composition that requires from 0.0002 to less than 0.01% molybdenum. Molybdenum is added to the composition of Seto to inhibit the generation of nickel sulfide stones. Because of the “consisting essentially of” transition language used in amended claim 1 to describe the composition which is being melted, molybdenum cannot be included in the glass composition recited in claim 1. The addition of molybdenum would materially affect the composition. For example, adding molybdenum would affect the coloration of the composition.

As a result, Seto does not disclose each and every limitation of the present invention as recited in claim 1. Specifically, Seto does not anticipate melting a glass composition that does not include molybdenum as recited in claim 1. Thus, the present invention as recited in claim 1 is not anticipated by the cited reference, and Applicants respectfully request the withdrawal of this rejection.

Claims 3 and 4 depend from claim 1 and recite the invention in varying scope. Applicants have discussed how amended claim 1 is not anticipated by Seto, and claims 3 and 4 are similarly not anticipated by the reference. More specifically, Seto does not anticipate melting a glass composition that does not contain molybdenum as recited in claim 1 as further limited in claims 3 and 4. As a result, Applicants respectfully request the withdrawal of this rejection.

**C. Rejection over European Patent Application 1 041 050 A1  
("Cochran")**

In the Office Action, claims 1-4 were rejected under 35 U.S.C. §102(b) as being anticipated by Cochran. The Examiner stated that Cochran discloses a float glass composition which anticipates the compositional composition of claims 1 and 2, and it inherently possesses the defect density, total field strength and water content recited in claims 1, 3 and 4. Applicants respectfully traverse this rejection.

**1. Cochran**

Cochran discloses a grey glass composition that includes iron and erbium oxide.

**2. Traversal of this Rejection**

The rule for a proper section 102 rejection is shown above. The present invention as recited in amended claim 1 is a method that comprises melting the glass composition described above.

In contrast to the present invention as recited in amended claim 1, Cochran discloses a glass composition that requires from 0.5 to less than 3.0%

erbium oxide. Erbium oxide is known in the art to act as a pink colorant.

Because of the “consisting essentially of” transition language used in amended claim 1 to describe the composition which is being melted, erbium oxide cannot be included in the glass composition recited in claim 1. The addition of erbium oxide would materially affect the composition. For example, adding erbium oxide would affect the coloration of the composition.

As a result, Cochran does not disclose each and every limitation of the present invention as recited in claim 1. Specifically, Cochran does not anticipate melting a glass composition that does not include erbium oxide as recited in claim 1. Thus, the present invention as recited in claim 1 is not anticipated by the cited reference, and Applicants respectfully request the withdrawal of this rejection.

Claims 3 and 4 depend from claim 1 and recite the invention in varying scope. Applicants have discussed how amended claim 1 is not anticipated by Cochran, and claims 3 and 4 are similarly not anticipated by the reference. More specifically, Cochran does not anticipate melting a glass composition that does not contain erbium oxide as recited in claim 1 as further limited in claims 3 and 4. As a result, Applicants respectfully request the withdrawal of this rejection.

### **Conclusions**

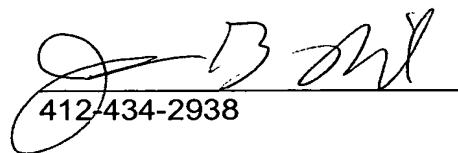
In light of the amendments and remarks presented in this correspondence, Applicants respectfully request withdrawal of the following rejections: the rejection of claims 1-4 under 35 U.S.C. §112, second paragraph; the rejection of claims 1-4 under 35 U.S.C. §102(b) as being anticipated by Brown; the rejection

of claims 1-4 under 35 U.S.C. §102(b) as being anticipated by Seto; the rejection of claims 1-4 under 35 U.S.C. §102(b) as being anticipated by Cochran; and the allowance of claims 1-4.

If any questions remain about this application, the Examiner is requested to contact Applicants' attorney at the telephone number provided below. Thank you.

Respectfully submitted,

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